

Balanced Scorecard
Winter 2010
P-1041 J. Hill

Internal Business Process

Objective: Minimize Impact of the Aging Plant

Initiative: Complete Modeling of Boiler Pendants to Develop Replacement Tubing Schedule

History: The intent of this effort is to review the operational and maintenance history of the unit boilers, particularly in regard to the Superheater Outlet Pendants and the Reheater Outlet Pendants. These are the hottest pendant elements in the boiler. The review will be used to determine if any changes are required in the element design when these sections are replaced during routine maintenance (five years in the future). Looking forward, the tubes in these elements will begin to experience creep damage and the tube-failure rate is expected to increase somewhere in the time frame of 25 - 30 operating years. We are looking for an outside contractor to develop a model of the boiler. The model will be used to determine if there should be any changes in metallurgy and/or layout geometry in the design of the replacement elements. These changes will mitigate past issues, but will not change unit output.

Status: We contacted B&W, the boiler OEM in December 2008. B&W was reluctant to offer any design-change information for fear that they could not protect their intellectual property rights. We lost six months in these discussions. During the summer of 2009 we discussed this proposal with Babcock Power (not affiliated with B&W). Babcock Power performed a similar model when the Platen Pendant Superheaters were modified concurrent with the HP turbine upgrade in 2002. Babcock Power has the ability to perform this model and is eager to help us out.

We are currently in the process of writing an RFQ for this study. We have identified three qualified bidders. This bid will go out in January 2010 which will allow time to complete the study within this fiscal year.